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10/566,307	01/27/2006	Dean Kamen	1062/E19	4217

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Michelle Saquet Temple
DEKA Research & Development Corp.
340 Commercial Street
Manchester, NH 03101-1129

EXAMINER	
LAUGHLIN, NATHAN L	
ART UNIT	PAPER NUMBER
2123	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,307	KAMEN ET AL.	
	Examiner	Art Unit	
	NATHAN LAUGHLIN	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-10 and 14-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-10 and 14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Final Action

Claims 1-4, 6-10, 14-23 are pending.

Claims 1-4, 6-10, 14-23 are rejected below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 6-10, 14-17, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (U.S. Pat. 5,973,481) in view of Underwood (U.S. PG Pub. 2003/0220717).

As to claim 1, Thompson teaches a system comprising: a generation device for converting an available resource to a desired utility (abstract), the generation device characterized by a plurality of operating parameters (col. 8 lines 13-23); b. an input sensor for measuring entering the generation device (col. 8 line 65- col. 9 lines 10); c. an output sensor for measuring the amount of output from the generation device (col. 8 line 65- col. 9 lines 10);

d. a controller for concatenating the measured source entering and the amount output on the basis of the input and output sensors (col. 8 line 65- col. 9 lines 10); and

e. a remote controller for modifying operation of the generation device: based on the concatenated measured entering the generation device and the amount of leaving the generation device (fig. 20, col. 17 lines 43-54).

As to claim 2, Thompson teaches a sensor for measuring at least one parameter of the said plurality of operating parameters of the generation device (fig 20).

As to claim 3. Thompson teaches one senor is a heat transfer monitor (col. 3 lines 7-25).

As to claim 6, Thompson teaches wherein the input sensor is a flowrate monitor (col. 9 lines 12-17).

As to claim 14, Thompson teaches a monitoring system comprising a telemetry module for communicating measured input and output parameters to a remote site (fig.1, 2 elements 48, 50).

As to claim 15, Thompson teaches the telemetry module is a cellular communications system (col. 7 lines 4-10).

As to claim 16, Thompson teaches a telemetry module is a wireless system (col. 7 lines 4-10).

As to claim 17, Thompson teaches a remote actuator for varying operating parameters of the generator based on remotely received instructions (col. 17 lines 43-54).

As to claim 21, Thompson teaches a system comprising: providing a generation device (abstract); coupling an input sensor for measuring an input entering to the generation device (col. 8 line 65- col. 9 lines 10); coupling an output sensor for measuring output leaving from the generation device (col. 8 line 65- col. 9 lines 10); coupling a local controller to the input and output sensor for concatenating the measured input entering and consumption of output leaving on the basis of the input and output sensors (col. 8 line 65- col. 9 lines 10), and providing a remote controller for modifying operation of the generation device based on the concatenated measured input and the amount of output (fig. 20, col. 17 lines 43-54).

As to claim 22, Thompson teaches providing communication between a telemetry module and said controller (fig. 1-2, elements 48, 50); and providing communication between said telemetry module and a monitoring station (fig. 1-2, elements 48, 50).

As to claim 23, Thompson teaches a distributed network of utilities comprising: generators for converting a resource into a useful utility (abstract); input sensors for measuring inputs entering the generation device(col. 8 line 65- col. 9 lines 10); output sensor for measuring the amount of output from the at least one generation device, wherein each generation device has a local controller that concatenates the measured

input entering and the amount of output from the at least one generation device (col. 8 line 65- col. 9 lines 10); a telemetry transmitter for transmitting input and output parameters of a specified generator (fig.3 elements 50, 39); and a remote processor for receiving input entering and the amount of output parameters from the at least one generation device (col. 8 lines 40-52, col. 17 lines 43-54).

Thompson differs from the claimed invention as recited in claims 1, 4, 7-10, 21, 23 in that the combined discloser or teaching fails to disclose or teach teaches the following:

As to claims 1, 2, 8, 17, 21, 23, wherein the generation device is a water purifier.

As to claim 4, wherein the at least one sensor is a flow impedance monitor.

As to claim 7, wherein the output sensor includes a water quality sensor including at least one of turbidity, conductivity, and temperature sensor.

As to claim 8, a shut off switch that automatically turns off said generation device when said water quality sensor rises above a pre-programmed water quality value.

As to claim 9, an alarm that alerts a user when said water quality value rises above a pre-programmed water quality value.

As to claim 10, a remotely operable shut off switch.

However Underwood teaches the following:

As to claims 1, 2, 8, 17, 21, 23, Underwood teaches wherein the generation device is a water purifier and monitoring a flow for the water (abstract, [0024, 0035]). Examiner notes that if the generation device is a water purifier that the inputs and outputs would be water.

As to claim 4, Underwood teaches wherein the at least one sensor is a flow impedance monitor [0035]. Underwood teaches the difference in pressure (flow impedance) through components in a water treatment facility.

As to claim 7, Underwood teaches wherein the output sensor includes a water quality sensor including at least one of turbidity, conductivity, and temperature sensor [0035].

As to claim 8, Underwood teaches a shut off switch that automatically turns off said generation device when said water quality sensor rises above a pre-programmed water quality value [0036-0028]. Underwood teaches if the water quality is not high enough that a backwash must be done. This would stop water treatment.

As to claim 9, Underwood teaches an alarm that alerts a user when said water quality value rises above a pre-programmed water quality value [0050]. Underwood teaches that a user can remotely monitor the data using a SCADA control panel and issue a backwash if needed.

As to claim 10, Underwood teaches a remotely operable shut off switch (col. 19 lines 58-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was created to include the teachings of Underwood into the system and methods as disclosed by Thompson. The motivation to combine is using a remote SCADA system a user can control the quality of a utility, such as water, by taking the appropriate action to successfully perform processes based on prompts from the control system [0049-0050].

3. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson (U.S. Pat. 5,973,481) in view of Underwood (U.S. PG Pub. 2003/0220717) and in further view of Tucker (U.S. Pat. 6,568,416).

Thompson and Underwood teach most of the claimed invention, but differ from the invention as recited in claims 18-20 in that the combined disclosers or teachings fail to disclose or teach teaches the following:

As to claim 18 a self-locating device having an output indicative of the location of the monitoring system.

As to claim 19, the self-locating device is a global positioning system.

As to claim 20, monitored characteristics of input and output depend upon the location of the monitoring system.

However, Tucker teaches the following:

As to claim 18, Tucker teaches a self-locating device having an output indicative of the location of the monitoring system (col. 12 lines 47-66).

As to claim 19, Tucker teaches the self-locating device is a global positioning system (col. 12 lines 47-66).

As to claim 20, Tucker teaches monitored characteristics of input and output depend upon the location of the monitoring system (col. 12 lines 47-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a GPS component as done in Tucker into the monitoring system of Thompson further modified by Underwood. The motivation to

combine is using GPS systems can increase precision and reduce errors (col. 1 line 63- col. 2 line 10).

Response to Arguments

4. Applicant's arguments filed 11-17-09 have been fully considered but they are not persuasive.

On page 7 Applicant states that it is not obvious to combine the Thompson reference with the Underwood reference, however, Applicant has given no reasoning behind this statement. Therefore, Examiner still believes this to be a proper combination and has given motivation to combine these references together as shown above in Section 2.

Also on page 7, and further on page 8, Applicants argue that the Underwood does not teach an input sensor for measuring source water entering the water purification device. Examiner disagrees with this statement. Underwood teaches that the controller, using influent values, controls the flow of water into the system. That is, based on the valve position the amount of water entering the purification device is known and controlled by the controller [0024]. Underwood goes on to teach that a sensor can be used to ensure that the valve is in the proper position to regulate the amount of water (flow) being input into the system [0035]. Furthermore, the base reference Thompson teaches using measured inputs and measured outputs to calculate efficiency of the generation device (col. 8 line 65- col.9 line 10). That combined with the teachings of Underwood, would include measured inputs and outputs (waste water and

treated water) which can be used to calculate efficiency of the water purification (generation) device.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN LAUGHLIN whose telephone number is (571)270-1042. The examiner can normally be reached on M - F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nate Laughlin/
Examiner, Art Unit 2123

/Paul L Rodriguez/

Supervisory Patent Examiner, Art Unit 2123